

REMARKS

Claims 1-7 were pending in the present application prior to this Amendment. In the Amendment, claim 3 is cancelled above. Claims 1, 4 and 5 are amended above. Please add new claims 8-10. No new matter is added by the claim amendments or new claims. Entry is respectfully requested.

The Applicants note that the Office Action Summary does not indicate whether the drawings filed in the application are acceptable. Confirmation of their acceptability is respectfully requested.

The specification stands objected to for an informality stated in the Office Action. The specification is amended above in a manner consistent with suggestions provided in the Office Action. Entry of the amendment and removal of the objection are respectfully requested.

Claims 1, 3 and 7 stand rejected under 35 U.S.C. 102(b) as being anticipated by Admitted Prior Art (APA). Claims 2 and 4-6 stand rejected under 35 U.S.C. 103(a) and being unpatentable over APA. Reconsideration of the rejections and allowance of claims 1, 2, and 4-7 are respectfully requested.

In the present invention of amended independent claim 1, an "oxide layer and a nitride liner" are "sequentially formed on the surfaces" of "both the first and second regions" of a "trench", and "the oxide layer is thicker in the first region than in the second region". Since the "oxide layer" is "thicker in the first region than in the second region" as claimed in claim 1, this prevents later excessive etching and the formation of a groove between a semiconductor layer surface and an isolation structure, which otherwise would result from over-etching of the nitride liner. In this manner, formation of an effective parasitic transistor, and the occurrence of the related "hump phenomenon" are avoided (see specification, page 11, line 29 - page 12, line 5).

It is submitted that APA fails to teach or suggest a semiconductor device comprising an isolation layer that includes an "oxide layer and a nitride liner" that are "sequentially formed on the surfaces" of "both the first and second regions" of a "trench", as claimed in claim 1. In APA, no oxide layer is formed along the surface of the second region of the trench. Thus, APA further fails to teach or suggest that "the oxide layer is thicker in the first region than in the second region", as claimed in claim 1, because, in APA, there is no oxide layer in the second region.

Accordingly, reconsideration of the rejection and allowance of amended independent claim 1 is respectfully requested. With regard to dependent claims 2 and 4-7, and new dependent claim 8, it follows that these claims should inherit the allowability of the independent claim from which they depend.


With regard to new claims 9 and 10, it is submitted that the cited references, whether alone or in combination with each other, fail to teach or suggest "an oxide layer that is formed on an upper surface of the first trench", and an "isolation layer that is formed on the first and second trenches" that includes "an oxide liner and a nitride liner that are sequentially formed on the oxide layer of the first trench and on an upper surface of the second trench", wherein "the oxide layer and oxide liner in the first trench is of a thickness that is greater than the oxide liner in the second trench", as claimed in claim 9. Entry and allowance of claims 9 and 10 are respectfully requested.

Closing Remarks

It is submitted that all claims are in condition for allowance; and such allowance is respectfully requested. If prosecution of the application can be expedited by a telephone conference, the Examiner is invited to call the undersigned at the number given below.

Respectfully submitted,

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